

# Water Supply and the Urban-Rural Conflict

As urban areas grow in size and population, they rely more heavily on surrounding rural areas for additional land and water resources. Such a situation has arisen in North Carolina's Chapel Hill-Carrboro area, an attractive residential location in close proximity to growing Research Triangle Park. In the last decade, the population of the area and the number of people served by the Orange Water and Sewer Authority (OWASA) have increased by 33%. If the expected growth trend continues, OWASA must locate an additional, reliable source of raw water to meet the projected demands of its service area.

The most desirable location for a water supply source is a relatively pristine watershed, free from point source pollution discharged by industries or waste water treatment plants and non-point source pollution generated by urban and agricultural land uses. Finding such a location is relatively difficult, and particularly so in rapidly urbanizing areas.

In a 1969 report, the New York engineering firm of Hazen & Sawyer identified Cane Creek and three other alternatives as future raw water supply sources. Of the four alternatives, the Cane Creek project was found to have superior water quality, have a protected water source and yield the additional ten million gallons per day desired. With cost and other factors in mind, the report urged that the Cane Creek project be authorized without delay and that steps be taken to acquire the site and design and construct the reservoir.

The Cane Creek project involves the construction of a dam and reservoir in a sparsely settled dairy farming community. In 1976, OWASA held a meeting in the Cane Creek area to inform residents of the agency's plans to flood the creek and surrounding farm and forest lands in order to provide for the water needs of its growing service area. As the meeting progressed and details of the plan were described, residents began to fear that OWASA had not taken into consideration the impacts of the proposed reservoir on those living and farming in the watershed, and how such impacts might be mitigated. Many Cane Creek residents began to view the reservoir as a threat to their lifestyles. They joined together to form the Cane Creek Conservation Authority (CCCA) to protest the reservoir project.

The residents of the area have good reason to protest the proposed project. Cane Creek is the center of a thriving dairy community. Twenty dairy farms are located in Bingham town-

ship in which the Cane Creek reservoir is primarily located. The Orange County Water Resources Task Force reports that this concentration of farms is the main reason Orange County ranks sixth among North Carolina's one hundred counties in milk production. If the Cane Creek project is constructed, 480 acres of land would be flooded, seven miles of streambed inundated, two families displaced, one road abandoned and one bridge relocated. Mature hardwood bottomland forests together with low-lying fields and pastures would also be lost.

A major consequence of the construction of the reservoir would be the disruption of present agricultural land uses. Two farms would be bisected by the reservoir, and residents maintain that the size and location of some of the remaining farm tracts would not be suitable for commercial farming. Area residents further maintain that their way of life and their land-dependent livelihood would be disrupted in order to alleviate water supply shortages in towns several miles away.

An associated threat to the Cane Creek residents is that posed by residential development which is often attracted to reservoir sites. As early as 1976, advertisements began to appear in newspapers for shorefront property on the proposed Cane Creek Reservoir. Related to this, the Water Resources Task Force reports that the population of Bingham township had increased 62.7% over the last ten years. Although the population is still relatively small, this is the highest percentage increase of the seven townships in Orange County.

If the reservoir is constructed, the assessed value of land adjacent to the reservoir is likely to increase. For farmers presently renting such land, this would result in increased operating costs. For farmers owning land, increased values would provide incentive to sell land at a profit. Because many of the tracts will be too small to farm, it can be expected that such parcels would be subdivided and sold for residential development. Cane Creek residents further expect that suburban newcomers would bring pressures against present agricultural practices, and that environmentalists would bring pressures against the use of herbicides and pesticides associated with agricultural activities. Residents contend that

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such pressures would be detrimental to the livelihood of the remaining dairy farms.

Since 1976, the Cane Creek Conservation Authority has represented the concerns of the Cane Creek residents. Their fears of agricultural land conversion and bedroom community development are not without precedent. The CCCA has acted in a watchdog capacity and has insisted that OWASA conduct its project to a strict interpretation of permit requirements. In order for OWASA to commence construction of the project, it had to obtain a U.S. Army Corps of Engineers 404 dredge and fill permit and a State 401 permit. It also had to be granted the power of eminent domain by the State Environmental Management Commission (EMC). At each level of decision making, the CCCA has been present as an observer and active participant.

The State 401 permit, certifying that fill material discharged into the creek during dam construction will not violate applicable water quality standards, was granted by the Division of Environmental Management in June 1978.

In order for the Corps of Engineers to grant OWASA the 404 permit request, the Corps prepared an Environmental Impact Statement (EIS) pursuant to the National Environmental Policy Act. The Final EIS was completed, and the 404 permit was issued to OWASA in August 1981. This permit, however, will expire in August 1982 unless construction at the dam site has begun.

The final major permission required by OWASA before construction of the project can begin is that of the Environmental Management Commission. As a result of litigation brought by the CCCA against the EMC, the EMC must prepare a state environmental impact statement pursuant to the State Environmental Policy Act. The Draft State EIS was completed in April 1982. When the Final State EIS is completed, the EMC will consider whether to grant OWASA the power of eminent domain. If the approval is granted before the August 1982 expiration of the 404 permit, and if the CCCA does not appeal the decision, OWASA could begin construction immediately, with possible completion of the project by 1986.

A project such as this raises many important and difficult issues: why a rural community should markedly alter its way of life to provide for increased water demands in urban areas miles away, and why farmers should have to anticipate land speculation for suburban development are just two of the many. There are no easy answers to the trade-offs involved in such issues, and decisions concerning them are not readily made. The efforts of the CCCA and of individual citizens have brought such questions before OWASA, the Corps of Engineers, the EMC and the general public of the area. Largely due to these citizen efforts, the project has been



*Dairy farm on tributary to Cane Creek.*

stalled and more attention given to studying potential impacts of the proposed project.

The future of the project and of the Cane Creek watershed is presently uncertain. If the EMC grants OWASA the power of eminent domain, all appeals are overruled and construction of the dam begins, the involvement of the Cane Creek residents will have produced one significant result. The OWASA Board of Directors has adopted a land policy for the Cane Creek watershed based on OWASA's intent to keep the reservoir from disrupting community life and from causing economic hardship to landowners. The Board's promotion of farm maintenance and preservation through this policy would also serve to protect and enhance the watershed and public water quality.

Several of the Board's land policies directly address the economic livelihood of the Cane Creek residents. For instance, OWASA may negotiate for the purchase of development rights of lands contiguous to the project as a means of ensuring that such properties remain in agricultural uses. Further, OWASA will support zoning the Cane Creek watershed for agricultural uses, low density development and public water supply purposes in order to protect the watershed. Finally, OWASA will support county tax policies that encourage continued agricultural use of lands in the Cane Creek watershed. If implemented, these policies will help to promote and maintain Cane Creek's agricultural livelihood and shield the area somewhat from encroaching urbanization.

Problems similar to this are occurring throughout the country as urban areas increasingly rely on rural areas for future land and water resources. Because such resources are limited and needed by both urban and rural residents, decisions concerning their use are of critical importance. As population increases continue, decisions of this nature will be made more frequently, and the balancing of urban and rural interests will become more critical.